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| 10/025,376 | 12/19/2001 | Lewis Illingworth | 120-105 | 5891 |

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06/19/2003

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EXAMINER

HOPKINS, ROBERT A

ART UNIT

PAPER NUMBER

1724

DATE MAILED: 06/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/025,376

Applicant(s)

Illingworth et al

Examiner

Robert A Hopkins

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 6-2-03
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14 and 45-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14, 15 and 19-35 is/are allowed.
- 6) ☒ Claim(s) 1, 7, 11, 12, 36, and 39 is/are rejected.
- 7) ☒ Claim(s) 2-6, 8-10, 13, 16-18, 37, 38, 40, 41, and 45-47 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1,7,11,12 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Oh et al(6432154).

Oh et al teaches a centrifugal separation system comprising fluid delivery means(air intake channel 17a) for providing a cylindrical vortex fluid flow, a separation chamber(11) for containing the fluid flow, a collector(13) for collecting matter, wherein the fluid flow centrifugally ejects the matter therefrom into the separation chamber(see figure 3). Oh et al further teaches wherein the

separation chamber is cylindrical. Oh et al further teaches wherein the collector and the separation chamber are configured such that a pressure is developed in the collector that is greater than the pressure in the separation chamber. Oh et al further teaches wherein the matter is selected from the group consisting of dust, nails, screws, dirt, and sand.

Examiner notes that although the Oh et al reference has a filing date of January 4, 2001, and applicant's foreign priority is dated back to May 21, 1999, applicant is only granted priority of the first application(09/835,084, filed April 13, 2001) for the following reasons: Examiner notes that the first application (09/835,084, filed April 13, 2001) is acceptable is a CIP application because the first application contains subject matter also contained in the current application, and therefore meets the 112 first paragraph standards for a CIP application. However, examiner notes that the first application (09/835,084, filed April 13, 2001) cannot be a CIP of application number(09/728,602 filed December 1, 2000) because application number(09/728,602 filed December 1, 2000) does not contain subject matter contained in either the first application(09/835,084, filed April 13, 2001) or the current application. Examiner notes that application number(09/728,602 filed December 1, 2000) is directed to a lifting platform, whereas the current application is directed towards a centrifugal separator. Examiner cannot locate any separation structure in the application number(09/728,602 filed December 1, 2000) , and therefore the 112 first paragraph criteria for a CIP application is not met. Therefore, the Oh et al application cited in the current office action is permissible prior art, because Oh

et al pre-dates the filing date of the only acceptable CIP application(serial number 09/835,084, filed 4/13/2001).

Claims 36 and 39 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Oh et al(6432154).

Oh et al teaches a method of centrifugally separating matter from a fluid comprising the steps of providing a cylindrical vortex fluid flow within a separation chamber, and centrifugally ejecting the matter into a collector. Oh et al further teaches the step of creating a higher pressure in the collector than in the separation chamber such that the cylindrical vortex fluid flow is maintained without impeding the matter from carrying into the collector.

Allowable Subject Matter

Claims 14,15,19-35 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Claims 14,15, and 19-35 recite subject matter which was indicated as allowable in the office action dated 12/18/02.

Claims 2-6, 8-10, 13,16-18,37,38,40,41, and 45-47 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 2 recites "wherein the fluid delivery means is powered by a motor".

Oh et al discloses a fluid delivery means, however the fluid delivery means is not powered by a motor. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide a fluid delivery means powered by a motor because Oh et al does not suggest such a modification.

Claim 3 recites "wherein the fluid delivery means is powered by an electrical motor". Oh et al discloses a fluid delivery means, however the fluid delivery means is not powered by an electrical motor. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide a fluid delivery means powered by an electrical motor because Oh et al does not suggest such a modification.

Claim 4 recites "wherein the fluid delivery means is powered by a combustion motor". Oh et al discloses a fluid delivery means, however the fluid delivery means is not powered by a combustion motor. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide a fluid delivery means powered by a combustion motor because Oh et al does not suggest such a modification.

Claim 5 recites "wherein the fluid delivery means is powered by compressed gas". Oh et al discloses a fluid delivery means, however the fluid delivery means is not powered by compressed gas. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide a fluid delivery means powered by compressed gas because Oh et al does not suggest such a modification.

Claim 6 recites "wherein the fluid delivery means is powered by a flowing fluid". Oh et al discloses a fluid delivery means, however the fluid delivery means is not powered by a flowing fluid. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide a fluid delivery means powered by a flowing fluid because Oh et al does not suggest such a modification.

Claim 8 recites "wherein the fluid delivery means comprises an impeller assembly". Oh et al discloses a fluid delivery means, however the fluid delivery means is not an impeller assembly. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide a fluid delivery means which comprises an impeller assembly because Oh et al does not suggest such a modification.

Claim 9 recites "wherein the fluid delivery means comprises a centrifugal pump". Oh et al discloses a fluid delivery means, however the fluid delivery means is not a centrifugal pump. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide a fluid delivery means which comprises a centrifugal pump because Oh et al does not suggest such a modification.

Claim 10 recites "wherein the fluid delivery means comprises at least one propeller". Oh et al discloses a fluid delivery means, however the fluid delivery means is not at least one propeller. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide a fluid delivery

means which comprises at least one propeller because Oh et al does not suggest such a modification.

Claim 13 recites "further comprising an inner tube and an outer tube, the inner tube and outer tube being coaxial and coupled to the separation chamber, wherein the gap between the inner tube and outer tube forms an annular duct." Oh et al discloses a cylindrical separation tube. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide an inner tube and an outer tube, the inner tube and outer tube being coaxial and coupled to the separation chamber, wherein the gap between the inner tube and outer tube forms an annular duct, because Oh et al does not suggest such a modification.

Claim 16 recites "wherein said collector is removable for emptying the contents of said collector". Oh et al discloses a collector which is fixed to the wall of the separation chamber. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide a collector which is removable for emptying contents of the collector because Oh et al does not suggest such a modification.

Claim 17 recites "wherein said collector further comprises a door for emptying the contents of said collector". Oh et al discloses a collector which is fixed to the wall of the separation chamber. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide a collector which comprises a door for emptying the contents of said collector because Oh et al does not suggest such a modification.

Claim 18 recites "wherein said collector further comprises a removable stopper for emptying said collector". Oh et al discloses a collector which is fixed to the wall of the separation chamber. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide a collector which comprises a removable stopper for emptying the collector because Oh et al does not suggest such a modification.

Claim 37 recites "wherein the fluid flow is delivered to the separation chamber via an inner tube coupled thereto". Oh et al discloses a fluid flow which is delivered to the separation chamber via a tube mounted in a cover. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide a fluid flow which is delivered to the separation chamber via an inner tube coupled thereto because Oh et al does not suggest such a modification.

Claim 38 recites "wherein the fluid flow exits from the separation chamber via an annular duct created between an inner tube and an outer tube, wherein the inner tube delivers the fluid flow to the separation chamber and wherein the inner tube and outer tube are coaxial". Oh et al discloses a cylindrical separation tube. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide an inner tube and an outer tube, the inner tube and outer tube being coaxial because Oh et al does not suggest such a modification. Claims 40 and 41 depend on claim 38 and hence would also be allowable upon incorporation of claim 38 into claim 36.

Claim 45 recites "wherein an impeller provides said cylindrical vortex fluid

flow". Oh et al discloses a tangential inlet which provides a cylindrical vortex fluid flow. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide an impeller which provides the cylindrical vortex fluid flow because Oh et al does not suggest such a modification.

Claim 46 recites "wherein at least one propeller provides said cylindrical vortex fluid flow". Oh et al discloses a tangential inlet which provides a cylindrical vortex fluid flow. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide at least one propeller which provides the cylindrical vortex fluid flow because Oh et al does not suggest such a modification.

Claim 47 recites "wherein a centrifugal pump provides said cylindrical vortex fluid flow". Oh et al discloses a tangential inlet which provides a cylindrical vortex fluid flow. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide a centrifugal pump which provides the cylindrical vortex fluid flow because Oh et al does not suggest such a modification.

Response to Arguments

Applicant's arguments with respect to claims 1 and 36 have been considered but are moot in view of the new grounds of rejection.

Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.**

See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

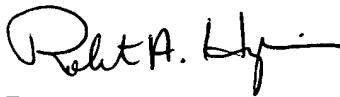
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert A Hopkins whose telephone number is 703-308-3913. The examiner can normally be reached on Monday-Friday 9:00am-3:00pm, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on 703-308-3318. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9572 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is

Application Number: 10/025,376
Art Unit: 1724

703-308-0661.



Robert A Hopkins
Primary Examiner
Art Unit 1724

rah
April 4, 2003